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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,041	10/01/2004	Klaus Franken	ISL0004-US	5287
28970	7590	11/29/2006		
EXAMINER				
MALEVIC, DJURA				
ART UNIT	PAPER NUMBER			
	2884			

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/510,041	FRANKEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Djura Malevic	2884

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 October 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 October 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/01/2005</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Claim Objections

Claim 2 is objected to because of the following informalities:

The recitation "and room temperature" should read as "at room temperature".

Appropriate correction is required.

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1 –23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131

USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

With regards to claim 1, the recitation "at least one UV light source" is broad and the recitation "in particular preferable in the form of a UV diode" is the narrower statement of the limitation.

With regards to claim 2, the recitation "a diode which emits light in the UV range from 180 to 500 nm" is broad and the recitation "preferable from 300 to 400 nm, in particular in the range from 350 to 380 nm" is the narrower statement of the limitation. Additionally, the recitation "optical output in the range from 0.5 to 20 mW" is broad and the recitation "in particular preferably from 1 to 5 mW" is the narrower statement of the limitation.

With regards to claim 3, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

With regards to claims 1-3, 6-8, 10, 11, 18, 20, 22 and 23, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.

Claim 8 recites the limitation "the instrument" in Page 5, Line 8. There is insufficient antecedent basis for this limitation in the claim.

With regards to claim 19, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 2 - 23 are also rejected under 35 U.S.C. 112, second paragraph, since claims 2 - 23 depend on claim 1.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,5-7,18,19,21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thei (German translated publication, DE 199 238 85 A1) in view of Hopewood et al. (US Patent 5,918,960).

With regards to claims 1 and 23, as best understood, Thie discloses a device for revealing security elements that are present in an object (Figure 1) and that have at least one photoluminescent segment which is characterized by linearly polarized absorption, characterized in that at least one UV light source 10, and a polarization filter are arranged in such a way that the light from the light source is linearly polarized by the polarization filter (Page 7, Lines 17 – 22) (Page 2, Line 1 – 7), respectively, the photoluminescent segment present therein and photoluminescent light from the segment in the visible range can be observed through an observation opening (Page, Line 26 – Page 10, Line 4). Thie does not expressly disclose a dark chamber. Hopwood teaches a chamber (Figure 4) which shields ambient light (Col 3, Line 28 – 34). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention

was made to modify Thie to include the chamber of Hopwood to shield ambient light to enhance the visibility of the photoluminescence light.

With regards to claim 5, as best understood, Thie discloses a polarization filter for observation can be rotated about a perpendicular axis (Page 7, Line 17 – 22).

With regards to claims 6 and 7, as best understood, Thie discloses a polarization filter that rotated in the beam path to the test object, absent some degree of criticality, appropriate means directed by hand or a transmission mechanism such as a motor, wherein said rotation frequency in the range from 0.2 to 5 Hz is considered an obvious design choice involving routine skill in the art.

With regards to claim 18, as best understood, Thie discloses a magnifying glass. (Page 7, Line 24).

With regards to claim 19, as best understood, Thie discloses a video camera (Page 8, Line 18).

With regards to claims 21 and 22, as best understood, Thie discloses the use of an infrared radiation source and an infrared image converter for verifying further security features (Page 8, Line 6 –13).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thie and Hopwood in view of Leach et al. (WO 01/59718 A1).

With regards to claim 2, as best understood, Thie discloses the claimed invention according to claim 1 and the said source emits in the UV range (i.e. emitting in the range of 100nm to 400nm). Thie does not expressly disclose the UV source is a UV LED providing an output of 0.5 to 20mW and a current of 15 to 20mA. Leach teaches a

UV LED generating UV radiation to authenticate a document, banknote...etc (Page 3, Line 22 –27). Note, UV LED's generally dissipate low power (i.e. 1 to 10mW) and generally generate low amps (i.e. 10 to 20 mA). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Thie and Hoopwood to include the UV LED such as that taught by Leach in order to consume less power and allow for compact designs (i.e. smaller designs) (Page 3, Line 22 – Page 4, Line 36) and with regards to the specific claimed parameters (i.e. power dissipation and current draw) is considered an obvious routine design choice involving only routine skill in the art.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thie and Hopwood in view of Mastnak (US Patent 5,444,263).

With regards to claim 3, as best understood, Thie discloses said test device is miniature and carried on the body of a person, absent some degree of critically the recitation in the form of a hand held instrument is considered an obvious design choice involving only routine skill in the art. For example, Mastnak teaches a device for revealing security elements constructed in the form of a pen comprising a UV light oriented substantially parallel to the axis of oriented UV light and an observation opening (Figure 4) (Col. 2, Line 8 –27). Thus, it would have been obvious to modify Thie to include the pen like configuration such as that taught by Mastnak in order to provide a pocket sized test device.

With regards to claim 8, as best understood, Thie discloses said test device is miniature and carried on the body of a person, absent some degree of critically the

recitation in the form of a hand held instrument is considered an obvious design choice involving only routine skill in the art. For example, Mastnak teaches a device for revealing security elements constructed in the form of a pen, which has cylindrical housing to accommodate a battery and a lower cylindrical housing part forming a darker chamber with an observation opening 2 (Figure 4) (Col. 2, Line 8 –27). Thus, it would have been obvious to modify Thie to include the pen like configuration such as that taught by Mastnak in order to provide a pocket sized test device.

Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thie and Hopwood in view of Cohen (US Pub. 2002/0163633).

With regards to claim 4, as best understood, Thie discloses the claimed invention according to claim 1 but does not expressly disclose that the observation can take place through a filter which substantially does not permit light in the range of the UV light source to pass while light in the visible photoluminescent light from the security element to pass substantially unimpeded. Cohen teaches a counterfeit detection apparatus comprising a UV filter between an observation lens and the UV source to shield the user from UV light [0022]. Note, one skilled in the art can appreciate that said filter taught by Cohen would inherently not obstruct any visible light since determining the visible light (i.e. photolumianence) is the user's intention. Thus, it would have been obvious to a person of ordinary skill in the art to modify Thie to include said UV filter such as that taught by Cohen to shield the user from harmful UV radiation.

With regards to claim 20, as best understood, Thie discloses the use of a polarization filter but does not expressly disclose that the observation can take place

through a filter which substantially does not permit light in the range of the UV light source to pass while light in the visible photoluminescent light from the security element to pass substantially unimpeded. Cohen teaches a counterfeit detection apparatus comprising a UV filter between an observation lens and the UV source to shield the user from UV light [0022]. Note, one skilled in the art can appreciate that said filter taught by Cohen would inherently not obstruct any visible light since determining the visible light (i.e. photolumianence) is the user's intention. Thus, it would have been obvious to a person of ordinary skill in the art to modify Thie to include said UV filter such as that taught by Cohen to shield the user from harmful UV radiation.

**Allowable Subject Matter**

Claims 9 –17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With regards to claim 9, the prior art on record fails to reasonably suggest or render obvious a device for revealing security elements comprising a observation opening characterized in that the lower housing part formed in the form of a segment cutout extending from the lower edge of the lower housing part with an opening angle in the range of 90 to 150 degrees with a height of less than 1.5cm, in combination with the rest of the claim limitations. As such, applicants' disclosure provides allowable subject matter.

With regards to claim 10, the prior art on record fails to reasonably suggest or render obvious a device for revealing security elements comprising two groups comprising two UV diodes irradiating the object in an alternating manner, wherein the first group throws a cone of light with a first polarization direction onto the object and the second group throws a cone of light with a second polarization direction onto the object. Additionally, the first polarization direction aligned substantially perpendicular to the second polarization direction, in combination with the rest of the claim limitations. As such, applicants' disclosure provides allowable subject matter.

Claims 11 –17 would also be allowable, since they further limit claim 10.

#### **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/509,735. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons noted below.

With regards to claim 1, it would have been obvious to a person of ordinary skill in the art to modify the invention defined by claims 1 and 2 of the 10/509,735 application to further recite specific, but otherwise obvious and /or inherent aspects related to the one light source emitting light in the UV range as defined according to claims 1 and 2 of the 10/509,735 application so as to generate new apparatus claims differing in scope and so as to more clearly define the invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Djura Malevic whose telephone number is

571.272.5975. The examiner can normally be reached on Monday - Friday between 8:30am and 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Djura Malevic*  
**Patent Examiner**  
**Art Unit 2884**  
**571.272.5975**

*[Signature]*  
**ALBERT J. GAGLIARDI**  
**PRIMARY EXAMINER**